

AC  
The Municipality of George Town,

PENANG.

STRAITS SETTLEMENTS.



HEALTH OFFICER'S  
ANNUAL REPORT

For the Year 1925.

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## STATISTICAL SUMMARY.

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Situation	...	...	...	Lat. 5° 24' N., Long. 100° 1' E.
Average Elevation above L.W.M.O.S.T.	...	...	...	Town area 12 feet 6 inches. Country area 25 feet 0 inch.
O. S. Tides rise and fall	...	...	...	9 feet 0 inch.
Rainfall 1925 (average of three readings within Municipal Limits)	...	...	...	135.68 inches.
Mean Temperature 1925	...	...	...	80.9° F.
Maximum do.	...	...	...	94.00° F. on 28th February and 2nd March.
Minimum do.	...	...	...	68.00° F. on 12th March.
Total area of Penang Island	...	...	...	108 sq. miles.
Area within Municipal Limits	...	...	...	9.4 sq. miles or 5803 acres.
Estimated population (mid-year)	...	...	...	133,373.
Density of population	...	...	...	22.8 per acre.
Crude Death Rate	...	...	...	28.93 per mille.
Infant Mortality	...	...	...	147.
Birth Rate	...	...	...	32.38 per mille.
Sterling equivalent of \$1.00	...	...	...	2s. 4d. (approximately).

STAFF OF THE HEALTH DEPARTMENT ON 31st DECEMBER, 1925.

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J. STUART ROSE	... M.B., D.P.H.				
	Health Officer,				
	Registrar of Births and Deaths,				
	Deputy Superintendent of Vaccination,				
	Registrar of Midwives,				
	Medical Superintendent of Infectious Diseases Hospital,				
	Medical Superintendent of Chinese Small-pox Hospital.				
G. S. GLASS	... B.A., M.B., D.P.H., D.T.M. and H.				
	Deputy Health Officer,				
	Deputy Registrar of Births and Deaths,				
	Deputy Superintendent of Vaccination.				
KHOO TIANG PHEAN	... M.B., B.S., (Hong Kong).				
	Deputy Registrar of Deaths.				
W. A. WARD	... Chief Sanitary Inspector, joined the service 1st January 1893.				
A. A. JEREMIAH	... Sanitary Inspector, joined the service 1st January 1904				
J. S. REUTENS	... do. 1st January 1905.				
H. L. McCULLOCH	... do. 1st January 1912.				
R. J. RANGEL	... Sanitary Sub-Inspector do. 1st October 1913.				
B. B. PETERS	... do. 1st May 1918.				
M. D'SOUZA	... do. 1st April 1919.				
J. LOH	... do. 17th May 1921.				
OW LEONG CHYE	... do. 1st July 1921.				
E. V. LESSLER	... do. 1st July 1921.				
V. E. ROZELLS	... do. 1st Sept. 1921.				
LIM THEAN SOO	... do. 1st Sept. 1921.				
F. A. SCULLY	... do. 1st May 1922.				
YEAP HIN TAT	... do. 14th August 1922.				
LIM KHAY SENG	... do. 1st March 1923.				
LO SIEW TEAN	... do. 1st July 1923.				
TEOH CHENG HOE	... do. 1st Dec. 1923.				
M. S. d'ORVILLE	... do. 18th Feb. 1924.				
LIM FOOK THOONG	... do. 1st August 1925.				
Miss J. A. G. RONALD	... C.M.B., District Nurse do. 9th January 1923.				
Miss C. M. GOLD	... do. 9th April 1923.				

Eight Qualified Chinese Midwives as part time District Nurses.

MUNICIPAL HEALTH OFFICE,  
Penang, 10th March, 1926.

To

THE MUNICIPAL COMMISSIONERS,

Gentlemen,

I have the honour to submit the following report on the health of the Municipality during 1925.

**Population.**

1. The estimated population was 133,373 divided among the various nationalities as follows:—

**Table I.**

Nationality.				Males	Females,	Total.
European	...	...	...	689	397	1,086
Eurasian	...	...	...	697	817	1,514
Chinese	...	...	...	54,654	36,792	91,446
Malay	...	...	...	8,736	8,885	17,621
Indian	...	...	...	15,884	4,531	20,415
Others	...	...	...	763	528	1,291
Total				81,423	51,950	133,373

**Births.**

2. There were 4,318 births registered of whom 2,254 were males and 2,064 females, the birth rate being 32.38 per thousand. The figures for 1924 were, births 4,257 and birth rate 32.54.

Reckoned on the estimated female population alone the birth rate was 83.12 per thousand compared to 83.93 per thousand in 1924.

The number of births and the birth rates for the various nationalities were as follows:—

**Table II.**

Nationality.	NUMBER OF BIRTHS.			BIRTH RATE PER THOUSAND	
	Males.	Females.	Total.	Total population.	Female Population.
European	24	22	46	42 36	115.87
Eurasian	29	23	52	34 35	63.65
Chinese	1,625	1,510	3,135	34.28	85.21
Malay	301	261	562	31.89	63.25
Indian	259	238	497	24,34	109.69
Others	16	10	26	20 14	49.24

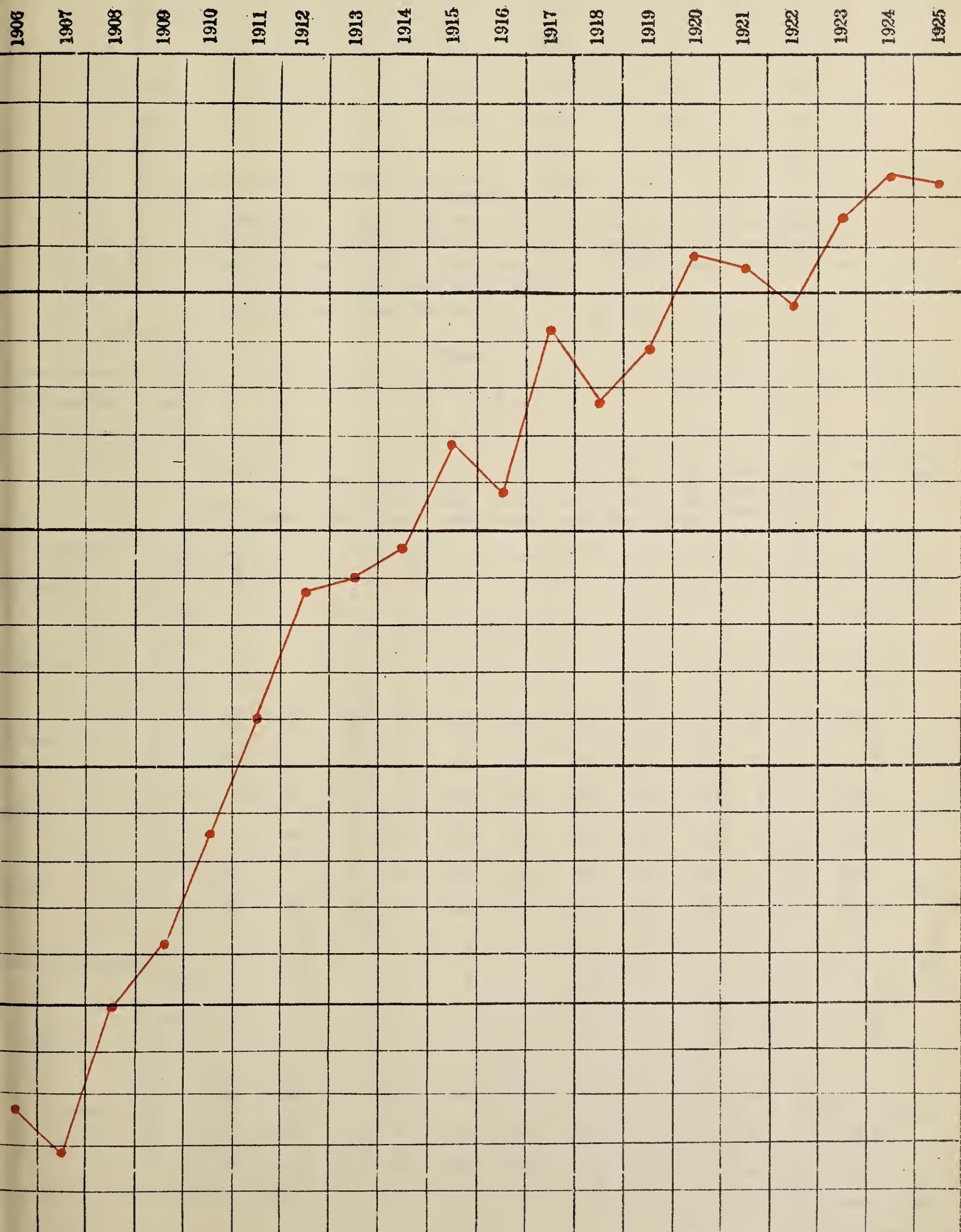
During the previous ten years the births registered were:—

Table III.

Year.	European.	Eurasian.	Chinese.	Malay.	Indian.	Others.	Total.
1915	46	38	1,774	478	403	78	2,808
1916	34	47	1,785	362	390	90	2,708
1917	39	44	2,010	463	472	71	3,099
1918	57	53	2,008	403	381	38	2,940
1919	41	51	2,134	481	467	29	3,203
1920	46	43	2,250	468	464	50	3,321
1921	48	71	2,623	557	437	32	3,768
1922	54	53	2,655	534	404	38	3,738
1923	59	53	2,818	573	499	26	4,028
1924	53	54	2,903	660	544	43	4,257
Average for ten years.	48	51	2,296	498	446	49	3,387
1925	46	52	3,135	562	497	26	4,318

# PENANG MUNICIPALITY.

## BIRTH RATE.



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A comparison of the births and deaths in the different nationalities may be of interest:—

Table IV.

Nationality.	Births.	Birth rate per thousand.	Deaths.	Death rate per thousand.
European	...	46	42,36	5
Eurasian	...	52	34,35	28
Chinese	...	3,135	34,28	2,165
Malay	...	562	31,89	468
Indian	...	497	24,34	538
Others	...	26	20,14	36

## Deaths.

3. The gross total of deaths within Municipal Limits during the year was 3,858, and the crude death rate 28.93; of this number 618 were not normally resident in Penang and had been less than three months within Municipal Limits. Omitting these, we have 3,240 deaths and a corrected death rate of 24.29 per thousand.

The following table shows the distribution of the deaths in age groups and nationalities.

Table V.

Nationalities.	Sex.	A G E S.												Total.	Grand Total.
		Under 1 year.	1 to 5 years.	5 to 15 years.	15 to 25 years.	25 to 35 years.	35 to 45 years.	45 to 55 years.	55 to 65 years.	65 to 75 years.	over 75 years.	Unknown.			
European	M.	1	...	..	1	...	1	...	...	...	...	...	3	5	
	F.	..	...	...	...	...	...	...	1	1	...	...	2		
Eurasian	M.	1	1	...	...	2	1	1	3	...	...	...	9	28	
	F.	1	1	3	...	3	1	..	4	5	1	...	19		
Chinese	M.	246	98	36	84	117	242	237	181	86	23	2	1,412	2,165	
	F.	189	98	49	51	85	80	59	60	55	26	1	753		
Malay	M.	54	26	11	13	25	25	16	16	20	12	...	218	468	
	F.	40	28	13	23	26	29	21	16	30	24	...	250		
Indian	M.	58	21	13	20	89	54	45	35	20	10	2	367	538	
	F.	39	25	8	9	36	16	10	13	12	3	.	171		
Other Nationalities	M.	2	3	...	2	1	5	1	2	...	3	..	19	36	
	F.	3	3	..	...	5	...	2	1	3	...	..	17		
Unknown	M.	...	...	...	..	...	...	...	...	...	...	...	..	..	
	F.	...	...	...	...	...	...	...	...	...	...	...	..		
Total	M.	362	149	60	120	294	328	300	237	126	48	4	2,028	3,240	
	F.	272	155	73	83	155	126	92	95	106	54	1	1,212		
		634	304	133	203	449	454	392	332	232	102	5	3,240		

Compared with 1924 the Malay deaths are less by 51, and the Indian deaths by 4, while the Chinese deaths have increased by 117.

The total deaths of each nationality in the last ten years is shown here.

Table VI.

Year.	European.	Eurasian.	Chinese.	Malay.	Indian.	Others.
1916	11	35	2,119	436	527	33
1917	11	36	2,484	549	688	59
1918	9	26	2,930	479	927	56
1919	13	34	2,539	528	872	38
1920	11	44	2,398	382	676	42
1921	10	26	2,213	394	629	41
1922	12	34	2,130	464	544	46
1923	9	31	2,066	467	573	35
1924	6	30	2,048	519	542	17
1925	5	28	2,165	468	538	36

Appended is Table VII showing the infant mortality in the various nationalities and a comparison with 1924.

Table VII.

Nationality.	Births.	Deaths under one year.	Infant deaths per thousand births.	
			1925	1925
			1924	1924
European	...	46	1	22
Eurasian	...	52	2	38
Chinese	...	3135	435	139
Malay	...	562	94	167
Indian	...	497	97	195
Others	...	26	5	192
Total	...	4318	634	147
				151

The chief causes of infant deaths and the mortality compared with that in previous years from the same causes are given in Table VIII.

Table VIII.

	Infant deaths per thousand births.									
	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925
Tetanus	40	40	30	39	34	22	2	8	4	0.5
Intestinal diseases	63	68	61	71	54	38	36	37	23	19
Respiratory diseases	51	53	54	46	41	31	24	27	25	27
Prematurity and Debility	50	57	46	48	47	32	15	26	27	23
Convulsions	12	13	12	9	9	24	59	23	43	47

These causes accounted for 507 of the 634 infant deaths which occurred.

2 infants were certified as having died from tetanus and 204 were returned as having died from convulsions: the corresponding figures for 1924 are 15 and 184.

Table VIII is unreliable, the only figures that may be used with any exactitude for comparison are those given in Table VII.

Table IX is given to show a comparison between births, infant mortality, and general death rate for the preceding ten years and for 1925.

Table IX.

Year.	Estimated Population.	BIRTHS.		DEATHS UNDER 1 YEAR.		DEATHS AT ALL AGES.	
		Total.	Rate per thousand population.	Total.	Rate per thousand births.	Total.	Rate per thousand population.
1915 ..	104,420	2,808	26.89	671	239	3,206	30.70
1916 ...	105,183	2,708	25.75	692	255	3,162	30.00
1917 ...	105,950	3,099	29.25	831	26.9	3,831	36.16
1918 ..	106,723	2,940	27.55	673	229	4,430	41.50
1919 ...	107,502	3,203	28.86	782	244	4,024	37.43
1920 ...	108,286	3,321	30.67	681	205	3,554	32.82
1921 ...	123,300	3,768	30.56	631	167	3,313	26.87
1922 ..	125,834	3,738	29.71	622	166	3,230	25.67
1923 ...	128,300	4,028	31.39	626	155	3,183	24.81
1924 ...	130,810	4,257	32.54	641	151	3,162	24.17
Average for the preceding ten years.		114,631	3,387	29.32	685	208	3,509
1925 ..	133,373	4,318	32.38	634	147	3,240	24.29

## Cause of Death.

4. Table X shows the age, sex and cause of death certified; 1203 of the certificates were from Hospitals or Private Practitioners, 24 from the Coroner and 2,013 from the Deputy Registrar of Deaths.

In other words less than half of the cases were under medical attention before death. As the number of post-mortem examinations made was so small as to be negligible, the diagnoses here tabulated must be accepted with reserve.

# PENANG MUNICIPALITY.

## INFANT MORTALITY.

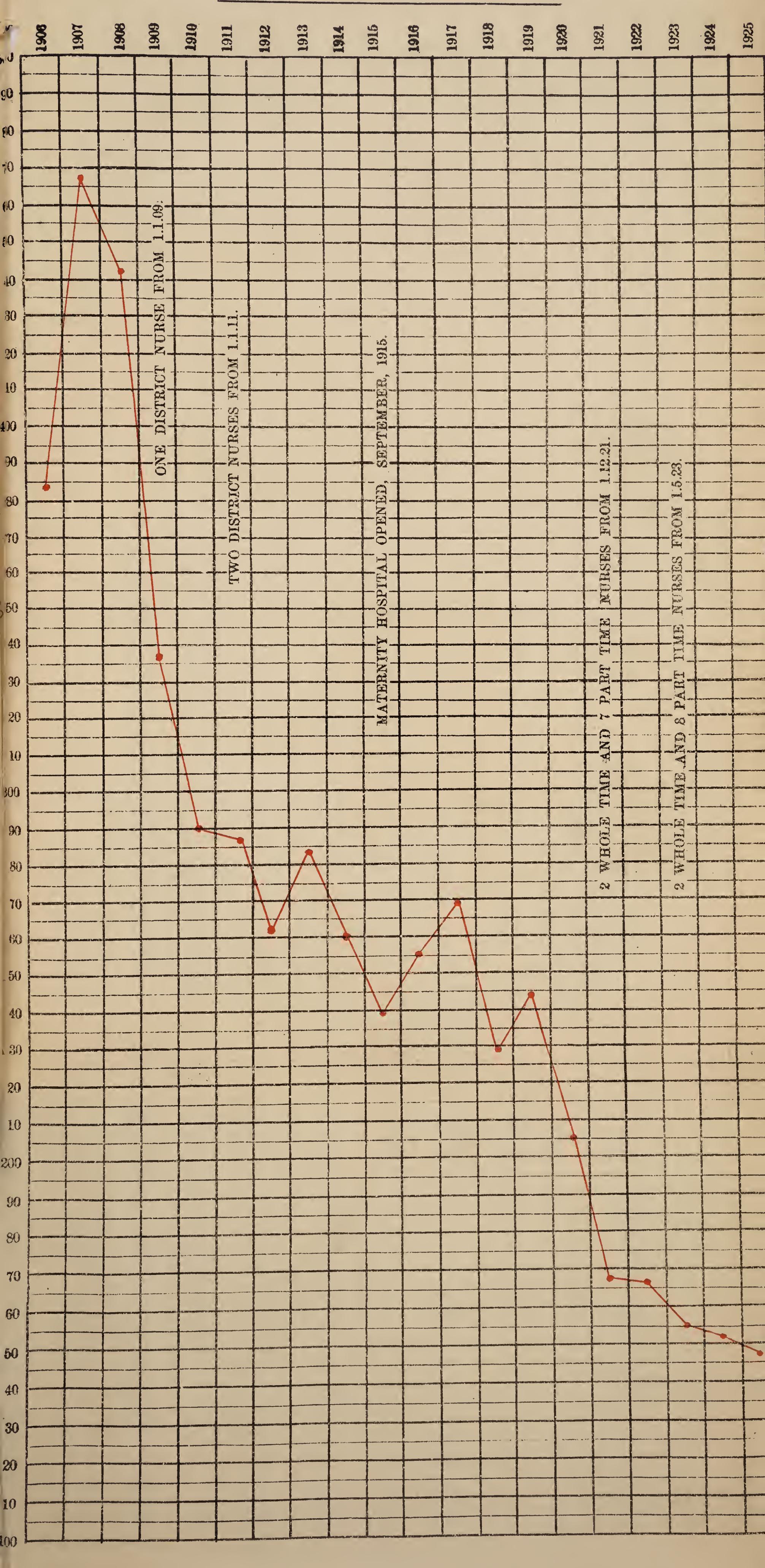




Table X.

Deaths from	SEX.	AGES.												Total.	Grand Total.
		Under 1 year.	1 to 5 years.	5 to 15 years.	15 to 25 years.	25 to 35 years.	35 to 45 years.	45 to 55 years.	55 to 65 years.	65 to 75 years.	over 75 years.	Unknown.			
Small pox	...	{ M.	...	...	...	...	...	...	...	...	...	...	...	...	...
		{ F.	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric fever	...	{ M.	...	...	1	3	1	1	1	...	...	...	...	7	11
		{ F.	...	...	2	1	1	...	...	...	...	...	...	4	
Diarrhoea	...	{ M.	35	10	3	3	3	2	2	3	1	...	...	62	125
		{ F.	26	22	2	2	3	2	2	1	1	2	...	63	
Dysentery	...	{ M.	2	...	...	4	15	7	5	7	1	...	...	41	58
		{ F.	...	...	2	1	4	2	5	2	1	...	...	17	
Unspecified fever	...	{ M.	56	53	23	30	66	62	61	30	10	2	...	393	659
		{ F.	43	54	23	26	41	27	26	16	9	1	...	266	
Syphilis	...	{ M.	4	...	...	1	9	7	3	2	...	...	...	26	30
		{ F.	1	2	...	...	...	1	...	...	...	...	...	4	
Puerperal fever	...	{ M.	...	...	...	...	...	...	...	...	...	...	...	...	10
		{ F.	...	...	...	6	4	...	...	...	...	...	...	10	
Other Septic diseases	...	{ M.	2	2	1	...	4	9	8	9	...	...	...	35	49
		{ F.	1	2	...	...	2	5	1	3	...	...	...	14	
Phthisis	...	{ M.	...	2	3	26	84	112	94	39	10	...	...	370	499
		{ F.	1	3	6	19	38	32	23	6	1	...	...	129	
Other Tubercular diseases	...	{ M.	1	1	3	...	1	1	1	2	...	...	...	10	18
		{ F.	...	2	2	1	3	...	...	...	...	...	...	8	
Leprosy	...	{ M.	...	...	...	1	1	...	...	...	...	...	...	2	4
		{ F.	...	...	...	...	1	...	...	1	...	...	...	2	
Tetanus	...	{ M.	1	1	...	...	...	1	...	...	...	...	...	3	4
		{ F.	1	...	...	...	...	...	...	...	...	...	...	1	
Cerebro Spinal Meningitis	...	{ M.	...	...	...	1	...	...	...	...	...	...	...	1	1
		{ F.	...	...	...	...	...	...	...	...	...	...	...	...	
Influenza	...	{ M.	1	2	...	1	...	...	...	...	1	...	...	5	13
		{ F.	...	1	...	1	1	...	2	1	2	...	...	8	
Diphtheria	...	{ M.	1	3	1	...	...	...	...	...	...	...	...	5	6
		{ F.	1	...	...	...	...	...	...	...	...	...	...	1	
Measles	...	{ M.	...	1	1	...	...	...	...	...	...	...	...	2	5
		{ F.	2	1	...	...	...	...	...	...	...	...	...	3	
Totals to carry forward	...	{ M.	103	75	36	70	184	202	175	92	23	2	...	962	1,492
		{ F.	76	87	37	59	98	69	59	30	14	3	...	530	

Deaths from	SEX.	AGES.											Total.	Grand Total.
		Under 1 year.	1 to 5 years.	5 to 15 years.	15 to 25 years.	25 to 35 years.	35 to 45 years.	45 to 55 years.	55 to 65 years.	65 to 75 years.	over 75 years.	Unknown.		
Brought forward	...	{ M. 103	75	36	70	184	202	175	92	23	2	...	962	1,492
		{ F. 76	87	37	57	98	69	59	30	14	2	...	530	
Malaria	...	{ M. 2	2	5	12	19	16	5	3	3	...	...	67	97
		{ F. ...	1	7	2	4	9	2	3	2	...	...	30	
Malarial Cachexia	...	{ M. ...	...	...	1	1	...	...	...	...	1	...	3	4
		{ F. ...	...	...	...	...	...	1	...	...	...	...	1	
Worms	...	{ M. ...	6	4	...	...	1	...	2	...	...	...	13	23
		{ F. ...	4	3	...	1	1	...	1	...	...	...	10	
Rheumatism	...	{ M. ...	...	...	...	...	...	...	1	...	...	...	1	1
		{ F. ...	...	...	...	...	...	...	...	...	...	...	...	
Cancer	...	{ M. ...	...	...	...	1	6	2	2	1	...	...	12	22
		{ F. ...	...	1	1	1	3	2	1	1	...	...	10	
Anaemia	...	{ M. ...	...	1	...	...	...	...	...	...	...	...	1	3
		{ F. ...	...	...	...	...	1	...	1	...	...	...	2	
Beri-beri	...	{ M. ...	...	...	...	2	1	1	...	...	...	...	4	6
		{ F. ...	...	...	...	2	...	...	...	...	...	...	2	
Premature birth	...	{ M. 31	...	...	...	...	...	...	...	...	...	...	31	53
		{ F. 22	...	...	...	...	...	...	...	...	...	...	22	
Old age	...	{ M. ...	...	...	...	...	...	...	36	78	37	...	151	287
		{ F. ...	...	...	...	...	...	...	24	65	47	...	136	
Convulsions	...	{ M. 122	4	...	...	...	...	...	...	...	...	...	126	218
		{ F. 82	9	1	...	...	...	...	...	...	...	...	92	
Other diseases of Nervous system	...	{ M. 3	1	...	4	3	5	2	1	...	...	...	19	30
		{ F. 1	1	1	2	2	...	1	2	1	...	...	11	
Organs of special sense	...	{ M. ...	1	...	...	...	...	...	...	...	...	...	1	2
		{ F. ...	1	...	...	...	...	...	...	...	...	...	1	
Circulatory System	...	{ M. 1	2	2	8	15	23	21	34	4	2	...	112	177
		{ F. 3	...	4	5	12	13	10	8	7	3	...	65	
Totals to carry forward	...	{ M. 262	91	48	95	225	254	206	171	109	42	...	1,503	2,415
		{ F. 184	103	54	67	120	96	75	70	90	53	...	912	

Deaths from	SEX.	AGES.												Total.	Grand Total.
		Under 1 year.	1 to 5 years.	5 to 15 years.	15 to 25 years.	25 to 35 years.	35 to 45 years.	45 to 55 years.	55 to 65 years.	65 to 75 years.	over 75 years.	Unknown.			
Brought forward	...	{ M. 262	91	48	95	225	254	206	171	109	42	...	1,503	{ 2,415	
Bronchitis	...	{ F. 184	103	54	67	120	96	75	70	90	53	...	912	{ 113	
Pneumonia	...	{ M. 9	8	...	...	1	4	20	26	6	2	...	76	{ 276	
Other diseases of Respiratory system	...	{ F. 9	7	...	...	...	3	1	12	5	...	...	37	{ 115	
Enteritis	...	{ M. 41	34	4	11	24	26	24	10	5	...	...	179	{ 35	
Diseases of Liver	...	{ F. 32	26	13	6	6	3	4	5	2	...	...	97	{ 28	
Other diseases of Digestive system	...	{ M. 14	12	5	2	11	10	12	9	...	1	...	76	{ 40	
Urinary system	...	{ F. 13	14	1	...	3	2	1	1	4	...	...	39	{ 103	
Generative Organs	...	{ M. 6	2	...	4	2	4	...	...	...	...	...	18	{ 1	
Child birth and Abortion	...	{ F. 7	2	2	...	...	3	2	...	1	...	...	17	{ 1	
Bones and Joints	...	{ M. 1	...	...	1	...	1	...	...	...	...	...	26	{ 8	
Accident & Negligence	...	{ F. 5	1	...	2	3	2	1	1	...	...	...	15	{ 7	
Homicide, Suicide & Execution	...	{ M. 3	...	2	4	4	7	2	1	2	...	...	25	{ 1	
Debility	...	{ F. 5	1	...	2	3	2	1	1	...	...	...	15	{ 61	
Unknown	...	{ M. 1	...	...	...	...	...	...	...	...	...	...	1	{ 1	
Diabetes	...	{ F. 1	...	...	...	...	...	...	...	...	...	...	...	{ 9	
Starvation	...	{ M. 1	...	...	...	...	...	...	1	...	...	...	1	{ 1	
Totals	...	{ M. 362	149	60	120	294	328	300	237	126	48	4	2,028	{ 3,240	
		{ F. 272	155	73	83	155	126	92	95	106	54	1	1,212	{	

A comparison between the numbers of deaths attributed to some of the principal causes in 1925 and in the preceding ten years is shown here.

Table XI.

	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	Average for preceding ten years.	1925
Phthisis	554	527	590	722	693	677	580	455	454	511	576	499
Pneumonia	163	203	220	559	243	235	220	266	222	188	252	276
Bronchitis	80	98	148	198	152	146	126	88	112	58	121	113
Malaria	421	473	455	478	606	505	420	134	101	52	364	97
Unspecified fever	258	184	239	323	68	20	116	504	524	589	282	659
Enteritis	202	213	266	257	318	265	186	73	97	9	139	35
Dysentery	163	134	147	130	188	138	115	108	75	81	128	58
Diarrhoea	35	20	29	30	49	23	115	147	166	157	77	125
Beri-beri	195	182	323	262	238	143	102	71	30	15	156	6
Debility	81	104	147	95	153	143	103	44	77	82	103	61
Tetanus	167	118	133	199	133	120	91	14	39	20	103	4
Old age	145	143	198	141	174	142	173	203	274	302	189	287
Small-pox	8	41	7	16	142	18	2	...	...	...	...	...

The distribution of the chief causes of death among the various nationalities is shown in Table XII.

Table XII.

Certified cause of death.			European.	Eurasian.	Chinese.	Malay.	Indian	Others.	Total.
Diarrhoea	...	...	...	...	113	4	7	1	125
Dysentery	...	...	...	...	37	1	20	...	58
Unspecified fever	...	...	...	1	355	176	118	9	659
Syphilis	...	...	...	...	23	...	6	1	30
Other Septic diseases	...	...	...	2	36	3	8	...	49
Phthisis	...	...	...	4	391	26	73	5	499
Malaria	...	...	...	1	76	3	17	...	97
Convulsions	...	...	...	...	130	41	46	1	218
Diseases of the Circulatory System	...	...	1	6	120	21	25	4	177
Bronchitis	...	...	...	1	82	12	15	3	113
Pneumonia	...	...	...	2	214	19	39	2	276
Other Respiratory diseases	...	...	1	1	79	11	21	2	115
Enteritis	...	...	...	...	21	2	12	...	35
Diseases of the Urinary System	...	...	1	1	67	6	28	...	103
Debility	...	...	1	...	29	11	19	1	61

Table XIII.

Cause of death.	NUMBER CERTIFIED BY			
	Hospitals.	Private Practitioners.	Deputy Registrar of Deaths.	Coroner.
Enteric fever	...	2	9	...
Diarrhoea	...	1	16	108
Dysentery	...	26	20	11
Unspecified fever	...	1	21	637
Phthisis	...	160	89	258
Tetanus	...	3	1	...
Influenza	...	1	12	...
Malaria	...	41	53	3
Beri-beri	...	1	3	2
Old age	...	16	9	262
Convulsions	...	5	13	200
Diseases of the Circulatory System	...	46	85	44
Bronchitis	...	5	27	81
Pneumonia	...	36	33	207
Enteritis	...	10	14	11

The total returns made by the Hospitals were 590, by private practitioners 613, by the Deputy Registrar of Deaths 2,013 and by the Coroner 24; that is the Deputy Registrar of Deaths certified more than three-fifths of the total deaths.

## Seasonal Mortality.

5. The deaths and death rate for each month are here recorded.

Table XIV.

Month.	Deaths.	Death rate per thousand.	Month.	Deaths.	Death rate per thousand.
January	279	24.63	July	248	21.89
February	239	23.35	August	277	24.45
March	246	21.72	September	295	26.90
April	255	23.25	October	291	25.69
May	271	23.92	November	283	26.40
June	246	22.43	December	310	27.37

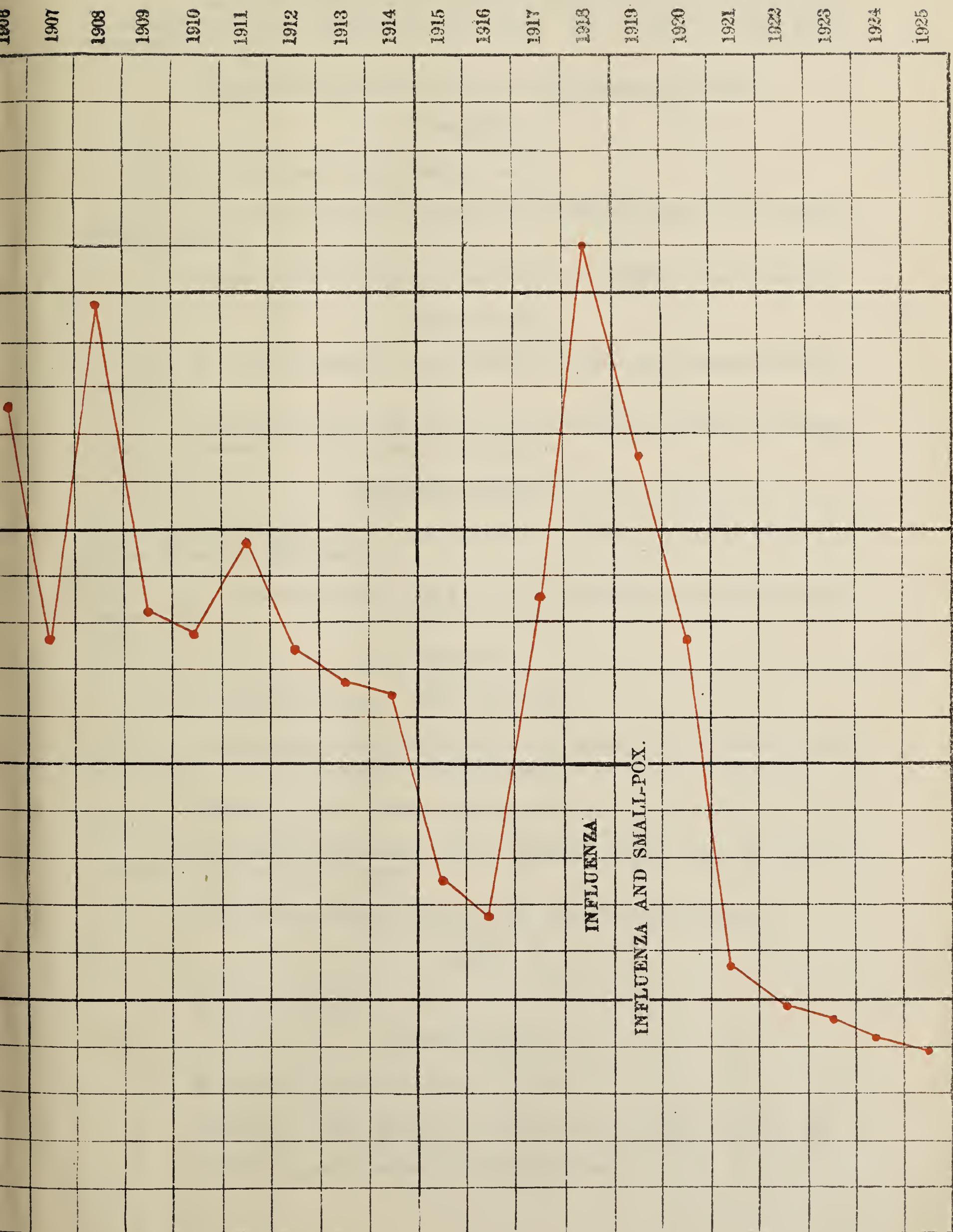
## Infectious Diseases.

6. Table XV shows the incidence among the various nationalities of the principal infectious diseases which occurred during the year.

Infectious Diseases.	Chicken-pox.	Enteric Fever.	Tuberculosis.	Influenza.	Puerperal Fever.	Diphtheria.	Cerebro Spinal Meningitis.	Measles.	Erysipelas.	Total.
European ... { M. F.	...	1	...	...	...	...	...	...	...	1
	1	...	...	...	...	...	...	...	...	1
Eurasian ... { M. F.	3	...	3	...	...	...	...	...	...	6
	...	1	1	...	...	...	...	...	...	2
Chinese ... { M. F.	5	8	294	5	...	6	1	2	...	321
	1	2	196	7	7	1	...	3	...	127
Malay ... { M. F.	5	...	13	...	...	1	...	1	...	20
	...	...	16	1	2	...	...	...	...	19
Indian ... { M. F.	42	2	65	...	...	...	...	13	1	123
	5	...	12	...	1	...	...	2	...	20
Others ... { M. F.	...	...	5	...	...	...	...	...	...	5
	...	...	2	...	1	...	...	...	...	3
Total ... { M. F.	55	11	380	5	...	7	1	16	1	476
	7	3	137	8	11	1	...	5	...	172
Grand Total ...	62	14	517	13	11	8	1	21	1	648

# PENANG MUNICIPALITY.

## CRUDE DEATH RATE.





**Vaccination.**

7. The system of infant vaccination remained the same as in 1924: most of the work was done by two senior Sub-Inspectors and the results were satisfactory.

4,318 births were reported during the year.

Our staff did 2,746 primary vaccinations, other public vaccinators and private practitioners 1,031, total primary vaccinations 3,777; there were 279 re-vaccinations performed.

634 infants died under age of one year of whom 566 were unvaccinated.

**Small-Pox.**

8. No case occurred within Municipal limits.

One imported case, from a steamship from India, was treated at the Infectious Diseases Hospital.

He had marks of successful vaccination, was a modified case and recovered.

**Enteric Fever.**

9. 14 cases were reported: 10 were Chinese, 2 Indians, and Eurasian and British one each.

3 cases were treated in Hospital of whom one Indian recovered, the remaining eleven were attended to at their homes: two recovered.

**Cerebro-Spinal Meningitis.**

10. A Male Sikh, aged 19, from Bagan Luar (outside Municipal limits) died in General Hospital on 12th March.

A male Hylam (Chinese), aged 2, from Chulia Street died at General Hospital on 3rd June.

**Chicken-Pox.**

11. 62 cases were reported: they all recovered.

47 of the cases were Indians (42 males and 5 females), 6 were Chinese (5 males and 1 female), 5 were Malay males, 3 were Eurasian males and one an European female.

Except two all the Indian cases were adults.

As noted in many previous Annual Reports, Indians seem to be very susceptible to this usually mild disease.

Our Indian population is just over one fifth of that of the Chinese.

**Plague.**

12. No case was reported.

**Puerperal Fever.**

13. 11 cases were reported compared to 20 in 1924.

Chinese had 7 cases, Malays 2 cases while Indians and Arabs had 1 case each.

One Chinese patient recovered: all the others died.

**Influenza.**

14. Under Ordinance No. 157 (Quarantine and Prevention of Disease), this is classified as a dangerous infectious disease.

13 persons were reported as having died of this disease: 12 were Chinese and one was Malay.

Cases were reported every month except February, April, July and August.

Two cases were reported for each of the months—January, June, October, November and December.

All the cases were notified by General Practitioners.

**Diphtheria.**

15. 8 cases were notified: seven were Chinese: their ages were 2/12, 2, 3, 3, 6, 8 and 10 years. 4 were admitted to General Hospital in an advanced stage of the disease: they died. 3 were treated at home at an early stage of the disease: one recovered.

The eighth case was a Malay aged 25: he was treated in Hospital and was cured.

**Whooping Cough.**

16. This is not notifiable as an infectious disease.

No case was reported.

**Measles.**

17. This infectious disease is not notifiable under Ordinance No. 157 (Quarantine and Prevention of Disease). Each year some cases come under our attention, but the disease has never assumed epidemic proportions.

21 cases were brought to our notice.

15 were Indians, 5 Chinese and one Malay.

The Malay case and all the Indian cases were admitted to the Infectious Disease Hospital and were discharged cured: they were practically all over childhood age.

The Chinese, aged 2, 3, 6, 10 and 10 years, were treated at their homes; unfortunately all died.

**Tuberculosis.**

18. It is difficult to estimate the incidence of phthisis and its mortality, since the majority of persons who die in the town have not been under medical treatment, and the Deputy Registrar of Deaths often cannot get sufficient reliable information to enable him to form a definite diagnosis.

We think it better that he should then use some vague term, such as "Un-specified Fever," rather than attempt an unattainable precision.

This means that we accept some uncertainty about our actual phthisis death rate.

It must be noted that more than half of the deaths from phthisis were certified by the Deputy Registrar of Deaths, these being the cases where he had reasonable grounds for such a diagnosis.

Even the apparent under-estimate of 499 deaths gives far too high a phthisis death rate, over 3.7 per thousand; on the other hand it is encouraging that this is lower than the rate in any of the preceding ten years.

It would be perhaps unwise to expect any great or sudden fall in the phthisis death rate until the overcrowding problem is less serious.

As before, all living quarters where a death from phthisis is reported were disinfected, and our staff gave advice to the occupants of houses where cases of phthisis are known or suspected to exist.

**Infectious Diseases Hospital, Perak Road.**

19. The rearrangement of the Hospital roads was not begun when the year ended.

There were 113 admissions, including 34 healthy contacts.

Tables XVI and XVII show their distribution according to disease and nationality.

**Table XVI.**

Disease.	Remaining on 31—12—24.	Admitted.	Total.	Discharged.	Absconded.	Died.	Remaining on 31—12—25.
Small-pox	...	1	1	1	...	...	...
Chicken-pox	3	55	58	54	1	...	3
Erysipelas	...	1	1	1	...	...	...
Measles	...	16	16	16	...	...	...
Syphilis	...	1	1	1	...	..	...
Diarrhoea	...	1	1	...	1	...	...
Phthisis	...	2	2	2	...	...	...
Herpes	...	1	1	1	...	...	...
Purpura Haemorrhagica	..	1	1	...	...	1	..
Total	3	79	82	76	2	1	3

**Table XVII.**

Nationality.	Remaining on 31—12—24.	Admitted.	Total.	Discharged.	Absconded.	Died.	Remaining on 31—12—25.
Chinese	...	2	2	1	1	...	...
Malay	...	18	18	17	...	1	...
Indian	4	39	97	93	1	...	3
Total	4	113	117	111	2	1	3

The three remaining in Hospital are Indians, suffering from Chicken-pox.

## Anti-Mosquito Work.

20. About 120 Indian coolies—including 20 “chokras” (boys), were employed during the year.

The men worked mostly at clearing stagnant ditches, filling in pools, and cutting undergrowth.

The boys did useful work collecting coconut shells, tins, and other receptacles likely to be mosquito breeding-places.

Four men were employed in oiling stagnant water in ditches and swamps.

The amount of oil used was, crude oil 11,505 gallons, and solar oil 7,670 gallons, the total cost of the oil being \$5,221.50.

The Anopheline mosquitoes found during the year within Municipal Limits were *A. maculatus*, *A. ludlowi*, *A. barbirostris*, *A. karwari*, *A. malayensis*, *A. kochi*, and *Q. vagus*. It is thought that none of these are locally carriers of malaria except *A. maculatus* which was found twice and *A. ludlowi* which was found once during the year.

These Anophelines were found in the following places:—

***A. maculatus*.**—Western Road.

***A. ludlowi*.**—Kelawei Road.

***A. barbirostris*.**—Kelawei Road, Northam Road, Dato Kramat Road.

***A. karwari*.**—Waterfall Road, Kelawei Road.

***A. malayensis*.**—Western Road, Waterfall Road, Dato Kramat Road, Kelawei Road, Northam Road, Scotland Road, Kebun Nyior, Singgora Lane, Logan Road, Barrack Road, Green Lane, Tanjong Tokong Road, Burmah Road, Lake Villa, Westlands, Pangkor Road, Cantonment Road, Batu Lanchang Road, Renong Ground, and Bagan Jermal Lane.

***A. kochi*.**—Burmah Road, Waterfall Road, Western Road, Kelawei Road, Scotland Road, Kebun Nyior.

***A. vagus*.**—York Road, Madras Lane, Anson Road, Bagan Jermal Lane, Ayer Etam Road, Waterfall Road, Northam Road, Scotland Road, Perak Lane.

We examined streams and seepage water near sites for quarters to be erected in connection with the new water scheme at Batu Ferringhi, and found *A. maculatus* in many places. There are also some larvae of *A. barbirostris* and *A. karwari*.

## Theatres.

21. All theatres and cinemas were inspected once a week.

The provision of actors quarters and extra sanitary conveniences has greatly improved these houses.

## Water Supply.

22. The supply was continuous and the average daily consumption was 44 gallons per head of the estimated population.

March was a dry month and the streams contained less water than is ordinarily required for town consumption.

Notices were published warning people against waste of water.

Soon after rain fell and the supply became normal.

Bacteriological examinations show that the water is of a satisfactory standard.

### Medical Attendance.

23. Medical advice or treatment was given to Municipal employees 3,508 times.

The total for 1924 was 2,481 and for 1923 was 2,279.

The number seen per month varied from 387 in July to 185 in January.

The number seen in the different departments were:—

Engineer 2,254, Health 412, Electrical 29, Fire Brigade 142, Jinricksha 51, Water 485, Secretariat 107 and Veterinary 28.

### District Nursing.

24. The work was again supervised by Miss J. Ronald and Miss C. M. Gold.

Eight locally qualified midwives were employed as part time nurses.

The main part of the town is divided into eight districts: to each district a midwife is allocated: each district nurse superintends the work in four districts.

The total number of visits and revisits made by the District Nurses and the eight midwives was over 45,200.

At the end of the year, (under the Midwives Ordinance 1923), 38 midwives were registered as Class "A", 72 as Class "B", and 16 as Class "C".

Class "C" are the local "bidans"—unqualified midwives—who were registered after the Central Midwives Board had certified that they possessed a competent practical knowledge of conducting midwifery cases.

138 babies died less than seven days old and 71 between the age of seven and fourteen days.

I do not expect any continued reduction in our Infant Mortality: our District Nurses and their assistants have done excellent work during the short term they have been employed.

The Maternity Hospital, opened in September, 1915, is being extended: it continues to be an institution of educational value and is appreciated by the many paying and non-paying patients who attend.

A glance at the Infant Mortality Chart printed on page 5 is refreshing and encouraging.

The District Nurses tell me that most of the babies born in Penang are breast fed. It may be so.

There are not many women in Penang who lack food—but the nursing mothers here are not properly fed and many of their babies die before they are four weeks of age.

"If it is at all possible, a mother should not sublet her duty to a cow" (MacMurchy).

"These first four weeks—frequently play havoc with infants and so great is this havoc, that were it to continue throughout the entire first year, there would be no infants left alive at the end of it" (Ashby).

14 days is still the period within which births must be registered and the full period is usually taken advantage of: this alone is a great handicap on the usefulness of our nurses.

## SALE OF FOOD AND DRUGS ACT.

## Milk.

25. Following the custom of previous years only such samples were bought for analysis as showed by lactometer that they were below the normal specific gravity.

Some 4,500 lactometer tests were made by the Laboratory Assistant and over 200 by the Sanitary Inspectors; five seemed to be below the standard and samples of these were bought and analysed.

Three were found to be adulterated, containing respectively 38, 12, and 8 parts per cent. of added water.

Two vendors were prosecuted: one was fined \$50 and costs; the other disappeared and a warrant has been issued for his arrest: the case against the third vendor will be heard in 1926.

One vendor was convicted for an offence committed during 1924: he was fined \$100 and costs.

33 vendors were convicted for having bottles or plantain leaves inside their milk cans and in contact with their milk.

Three men were convicted for selling milk without a licence and three vendors were fined for failing to carry their vendor badges or licences.

204 milk vendors were registered after medical examination. In the years 1924, 1923 and 1922 the numbers registered were 217, 225 and 250.

The reason for this decrease in the number of registered milk vendors is obscure: it may be that the sale of adulterated milk proved less lucrative to the heavily fined "water and milk" sellers than they expected: some have ceased business: many now sell milk.

There has been a remarkable decrease in the number of cases of gross adulteration of milk during the past few years.

In 1919 we ceased buying milk samples at random and since then have bought only such samples as, after lactometer test, are thought to be worthy of analysis.

In 1920 we found 76 adulterated samples of milk and in the succeeding years 21, 20, 7, 4 and 3 respectively.

As already stated over 4,700 milks were tested by lactometer and only three "watered milks" were discovered.

Having now greatly discouraged the adulteration of milk sold by registered vendors, our thoughts turn to the possibility of securing a clean milk supply.

This will seem to local dairymen a strange and useless thing to aim at. As we do not find tuberculous cattle here, and have not had any important epidemic of milk-borne disease, they believe that there is no connection between milk supply and the public health.

Moreover, dairymen do not realize that every particle, however small, of dirt teems with germs, and that these germs make the milk sour. There must always be much dirt in milk when the cowshed is dirty, and neither the milkers' hands nor the cows' udders are properly washed.

Supervision of the daily milking at all the large and small cowsheds and dairy farms is quite impossible under present conditions; and even if it could be undertaken we should still have the problem of the large supplies which come every day from outside Municipal limits.

We supervise to the best of our ability the distribution of milk. All the vendors must use covered cans, mostly made of plated brass. These are inspected in the streets at frequent intervals by members of the staff, and at least once a year at the Health Office when the vendors come for medical examination.

It is fortunate that most consumers in Penang boil their milk—if we may assume that the gain in cleanliness counterbalances any loss in vitamines; but some, especially those who keep their own cow, have an unjustified belief in the cleanliness and freedom from adulteration of the milk supplied to them.

We recommend every householder to strain and boil all fresh milk as soon as it arrives at the house; or if they feel sure that milk arrives reasonably clean, to strain it and put it on ice immediately. With this advice, and our continued efforts to improve both the sanitation of the cowsheds, and the methods of distribution, we hope that our milk supply will never become a serious menace to the health of the community.

#### General Progress in Public Health.

26. A table has been prepared to present a quick view of the main facts in our vital statistics of the last twenty years.

The figures are the simplest available. I may indicate certain factors unconnected with sanitation which influence the rates.

- (a) The proportion of females to males in the population has shown a steady tendency to increase, being now more than 3 to 5, whereas in 1905 it was approximately 3 to 9. There is therefore a certain natural increase in the birth rate.
- (b) The increase is further helped by the improvement which has taken place in the registration of births.
- (c) The infant mortality shown for the earlier years of the series is probably slightly higher than the true rate, owing to defective registration of births in those years.
- (d) Before the census of 1921, the population was greatly under-estimated. The death rates for some years before 1921 being calculated on a number smaller than the actual population is therefore higher than the actual death rate for those years.

In spite of these defects, the table undoubtedly shows that great improvement has taken place, and I may make the position clearer by one simple calculation.

The estimated population mid-1925 was 133,373. The average crude death rate for the five years 1906—1910 was 40.2. At that rate in 1925 we should have had 4,082 deaths, instead of the 3,858 which actually occurred, i.e., there was a saving in one year alone of 224 lives.

The new Electrolytic Hypochlorite Installation was erected and brought into use at the latter end of the year.

The plant works on 240 volt D.C. circuit, taking 10 amperes, and is capable of producing 14 gallons per hour of solution.

The Hypochlorite Solution is produced by the electrolysis of brine, manufactured brine being more easily provided than clear sea water.

The plant should produce a solution of 5 grammes per litre of available chlorine: some difficulty was experienced in obtaining a strong solution owing to lack of working knowledge of the plant.

The strength of the solution is steadily improving and is now about 4.95 grammes per litre.

The plant is producing about 1600 gallons of solution a month at an average cost of five cents per gallon, excluding depreciation.

The solution is stabilised by the use of Magnesium Chloride and Sodium Hydroxide.

Hypochlorite Solution is used in connection with Night-soil Collection, Scavenging Work, Public Latrines, Markets, Abattoirs, Veterinary Hospital, etc.

Table XVIII.

Year.	Total number of		Birth Rate.	Crude Death Rate.	Infant Mortality.
	Births.	Deaths (crude)			
1906	1253	4250	12.60	42.55	384
1907	1190	3776	11.84	37.59	467
1908	1519	4552	14.97	44.86	442
1909	1656	3923	16.15	38.25	337 (a)
1910	1905	3912	18.39	37.76	290
1911	2133	4045	21.02	39.88	287 (b)
1912	2421	3829	23.69	37.47	261
1913	2464	3794	23.95	36.86	284
1914	2545	3774	24.55	36.40	260
1915	2808	3390	26.89	32.46	239 (c)
1916	2708	3341	25.74	31.76	255
1917	3099	4071	29.25	38.42	269
1918	2940	4909	27.55	45.99	229
1919	3203	4466	28.86	41.54	244
1920	3321	4090	30.67	37.75	205
1921	3768	3775	30.56	30.61	167 (d)
1922	3738	3768	29.71	29.94	166
1923	4028	3801	31.39	29.62	155 (e)
1924	4257	3811	32.54	29.13	151
1925	4319	3858	32.38	28.93	147

Note:—(a) 1st January 1909—one District Nurse.

(b) 1st January 1911—two District Nurses.

(c) September 1915—Maternity Hospital opened.

(d) 1st December 1921—two whole time and seven part time District Nurses.

(e) 1st May 1923—two whole time and eight part time District Nurses.

## Financial.

27. The total expenditure of the Health Department for 1925 was \$131,416.81.

This includes everything, the Quarantine Camp, the District Nurses' Scheme, Vaccination, Anti-Mosquito Work, all pay and allowances and the Commissioners' donations to the Provident Fund of our staff.

The total receipts amounted to \$14,122.07, leaving \$117,294.74 as the cost of the department to the ratepayers.

This represents a rate of 2.009%, or a little less than five pence in the pound sterling.

The population being 133,373 the total cost of the department for the year per head of population is about 88 cents or about two shillings sterling.

28. A report by the Chief Sanitary Inspector giving details of sanitary work is attached.

## Staff.

29. The Sanitary Inspectors, Clerks and Office attendants worked well and loyally.

The Municipal Sports Challenge Shield was again won by this department.

S.S.I. G. Martinez resigned on 1st August.

S.S.I Lim Fook Thoong joined the service on 1st August.

I take this opportunity to thank the Officers and Subordinates of all other departments for their ready assistance and advice.

I have the honour to be,

Gentlemen,

Your obedient servant,

J. STUART ROSE,

M.B., D.P.H.,

*Municipal Health Officer.*



Penang, 19th February, 1926.

To

THE MUNICIPAL HEALTH OFFICER,  
PENANG.

SIR,

I have the honour to submit the report of the work done by the staff during the year ending 31st December, 1925.

**General Sanitation.**

The staff made 26,007 inspections and 26,588 reinspections.

They found 1,155 defective and 2,071 filthy houses.

4,689 notices were issued and 4,681 (including 8 unserved and brought forward from 1924) were served: 4,559 (including 300 outstanding on 31-12-24) have been complied with.

(Vide detailed list below)

Notices.		Outstanding on 31-12-24.	Unserved on 31-12-24.	New Notices issued 1925.	New Notices served in 1925.	Unserved on 31-12-25.	Complied with.	Work started.	Cancelled.	Brought for- ward to 1926.
Nuisance	...	183	3	370	367	3	305	66	5	240
Lime washing	...	26	3	276	279	...	297	5	...	8
Latrines	...	4	...	126	126	...	88	3	3	39
Drains	...	8	1	113	112	2	104	2	2	14
Filthy Premises	...	1	1	562	561	...	546	...	...	16
Common Lodging Houses	...	10	...	866	866	...	865	...	5	6
Trades	...	2	...	431	431	...	431	...	2	...
Bakeries	...	2	...	866	866	...	866	...	1	...
By-Laws	...	2	...	5	5	...	6	...	...	1
Partitions	...	36	...	267	267	...	259	6	10	34
Mosquito Orders	...	7	...	132	130	2	131	3	...	6
Rats	...	1	...	35	35	...	35	...	...	1
Disinfection of infected houses	...	...	...	603	599	4	594	...	5	...
Wells	...	18	...	37	37	...	32	6	...	23
<b>TOTAL</b>	<b>...</b>	<b>300</b>	<b>8</b>	<b>4689</b>	<b>4681</b>	<b>11</b>	<b>4559</b>	<b>91</b>	<b>34</b>	<b>388</b>

34 notices were cancelled for various reasons.

305 Nuisance notices were complied with during the year dealing with 656 houses, of which 215 houses were structurally altered to provide light and ventilation, and land was set apart for back lanes or passages.

441 houses were repaired, i.e., floors, drains, roof and latrines put in order.

6 marshy lands were filled in, and 60 other nuisances dealt with. In 91 cases work has been started, including Kedah House and 63 and 65 Northam Road.

26 permits were granted to erect latrines or to construct drains.

#### Wells.

37 notices under section 247 were served, and 18 brought forward from 1924. 32 were complied with; 47 wells were closed.

#### Cemeteries.

The Sub-Inspector in charge visited the public cemeteries 56 times, and private ones 74 times.

#### Exhumations.

56 applications for exhumation of bodies were received, but only 47 bodies were exhumed under special licence.

#### Passengers.

412 passengers arrived from infected ports and passed through this office as against 172 last year.

#### Plans.

273 plans were sent in and examined in this office as against 247 last year.

#### Prosecutions.

456 summonses were issued during the year.

49 were brought forward from 1924 (vide list A).

Total 505

74 Abatement of Nuisance, 1 Prohibition, and 17 Mandatory Orders were obtained.

The fines imposed by the Magistrates amounted to \$1,813 against \$1,593 last year.

#### Disinfections.

572 houses were disinfected during the year for the following causes:—

Phthisis	...	...	...	...	...	368
Small-pox	...	...	...	...	...	1
Measles	...	...	...	...	...	5
Dysentery	...	...	...	...	...	31
Diarrhoea	...	...	...	...	...	111
Enteritis and Enteric	...	...	...	...	...	30
Chicken-pox	...	...	...	...	...	19
Erysipelas	...	...	...	...	...	3
Diphtheria	...	...	...	...	...	3
Leprosy	...	...	...	...	...	1
					Total ...	572

The houses disinfected being distributed as follows:—

**Phthisis** :—Chulia Street (18), Beach Street (16), Rope Walk (13), Burmah Road (11), Macalister Road and Campbell Street (10 each), Carnarvon Street and East Jelutong (9 each), Dato Kramat Road, Hutton Lane, Penang Street, Magazine Road and Bridge Street (8 each), Kimberley Street, Acheen Street and Prangin Road (7 each), Penang Road, Perak Road and Gladstone Road (6 each), Noordin Street, McNair Street, Stewart Lane, Caunter Hall, Weld Quay, Cintra Street and Transfer Road (5 each), Jelutong Road, Perak Lane, Maxwell Road, Irving Road, China Street, Bukit Dunbar, West Jelutong, Chulia Lane, Muntri Street, Presgrave Street, Kuala Kangsa Road, and Green Lane, (4 each), Armenian Street, Soo Hong Lane, Anson Road, Pitt Street, Prangin Lane, Kampong Deli, Hong Kong Street, Lorong Salamat, Argyll Road and Queen Street (3 each), Cantonment Road, Tek Soon Street, Seang Tek Road, Kek Chuan Road, Jahudi Road, Tye Sin Street, Malay Street, Kedah Road, Bishop Street, Malacca Street, Sungei Pinang Road, Cannon Square, Brick Kiln Road, Noordin Street, Western Road, Scotland Road, Lumut Lane, Singora Lane, and Patani Road (2 each) Leith Street, Burmah Lane, Fish Lane, Green Lane, North Beach, Aier Etam Road, Klang Street, Barrack Road, Mount Erskine Road, Seck Chuan Lane, King Street, Prangin Road Ghaut, Lorong Susu, Love Lane, York Road Kita Lane, Market Street, Toh Aka Lane, Carnarvon Lane, Katz Street, Market Lane, Sungei Ujong Road, Dato Koyah Road, Batu Lanchang Road, Kampong Malabar, Selangor Road, Tongkah Road, Maiay Street Ghaut, Macalister Lane, Ariffin Court, Cheapside, Tamil Street, Northam Road, Rangoon Road, River Road, Halfway Road, Madras Lane, Merican Road, Siam Road, Acheen Street Ghaut, Larut Road and Armenian Street (1 each).

**Small-pox** :—Brick Kiln Road, (Sikh Guruduara).

**Measles** :—Penang Road and Patani Road (2 each) and Gladstone Road (1).

**Dysentery** :—Bridge Street (6) Pragin Lane and Madras Lane (2 each), Stewart Lane, Kampong Java Bahru, Kuala Kangsa Road, East Jelutong, Argyll Road, Carnarvon Street, Keng Kwee Street, Bertam Lane, Kampong Java Lama, Burmah Road, Northam Road, Kimberley Street, Beach Street, Muda Lane, Transfer Road, Macalister Lane, Rangoon Road, King Street, Green Lane, Dato Kramat Road and Kedah Road (1 each).

**Diarrhoea** :—Bridge Street, West Jelutong (6 each) Jelutong Road and Hutton Lane (5 each), Magazine Road, Rope Walk (4 each), Prangin Road, Kuala Kangsa Road, Chulia Street, Beach Street, Presgrave Street, Cintra Street, East Jelutong (3 each), Kampong Malabar, Penang Road, Brick Kiln Road, Carnarvon Lane, Muntri Street, Cecil Street, Prangin Lane, Burmah Road, Cannon Square, Sungei Pinang Road, Campbell Street, Presgrave Street Ghaut, Gladstone Road, Scotland Road, Green Lane, Kimberley Street, Aier Etam Road (2 each), Noordin Street, Macalister Lane, Sri Bahari Road, Pitt Street, Claimant Place, Market Lane, Gaol Road, Carnarvon Street, Victoria Street, Lorong Saratus Tahun, Kedah Road, Ceylon Lane, Edgecumbe Road, Argyll Road, Armenian Street, Patani Road, Bengal Lane, Tye Sin Street, Seck Chuan Lane, Kek Chuan Road, Aboo Sittee Lane, Perak Lane, Soo Hong Lane, Fish Lane, Malacca Street and Seang Tek Road (1 each).

**Enteritis** :—Beach Street (5), Chulia Street (3), Dato Kramat Road, Burmah Road and Glandstone Road (2 each), Rope Walk, Penang Street, Kampong Java Lama, Seh Tan Court, Katz Street, Presgrave Street, Aier Etam Road, Gaol Road, Noordin Street, Bishop Street, Penang Road, Toh Aka Lane, Perak Road, Cecil Street, Market Lane, and Northam Road (1 each).

**Chicken-pox** :—Gladstone Road, Hutton Lane, Kampong Java Bahru and Market Lane (2 each), Kek Chuan Road, Ngah Aboo Lane, Noordin Street Ghaut, Queen Street, Prangin Road Ghaut, Cantonment Road, Chin Ho Square, Kajang Road, Patani Road, Tanjong Tokong Road and Western Road (1 each).

**Erysipelas** :—Aier Etam Road, Dato Kramat Road and Malacca Street, (1 each).

**Diphtheria** :—Bertam Lane, Carnarvon Lane and Malay Street (1 each).

**Leprosy** :—Light Street and Weld Quay (1 each).

**Trades.**

The fees collected during the year for trade licences amounted to \$7,916.30 against \$7,666.80, an increase of \$249.50 (vide attached list B).

**Common Lodging Houses.**

876 Common Lodging Houses were licensed during the year against 869 in 1924, the fees collected amounted to \$1,530.20 as against \$1,523.90, an increase of 7 houses and increased fees of \$6.30.

The staff made a night raid on 49 common lodging houses in August, 19 of them were found to be overcrowded—summonses were issued against the keepers and fines amounting to \$354 were imposed by the Magistrate.

**Lodging Houses under the Minor Offences Ordinance.**

26 Lodging Houses were licensed under the Minor Offences Ordinance as in 1924.

**Milk.**

204 milk sellers were registered in 1925 against 217 in 1924 a decrease of 13.

5 samples were sent for analysis of which 3 were found to be adulterated.

44 Summonses were issued (3 for selling milk adulterated with added water and 41 for offences against the by-laws). Of the former, 2 were fined \$100 and \$50 respectively.

42 cases were brought forward from 1924.

**Total 86**

41 convictions were obtained

45 carried forward to 1926.

**Total 86**

Fines amounting to \$393 were imposed as against \$635.50 in 1924—a decrease of \$242.50.

The Sanitary Inspectors spent an afternoon each month in testing milk by lactometer from the various milk-sellers whom they met in different parts of the town.

205 samples were tested during the year by them and 4,549 by the Laboratory Assistant.

**Vaccination.**

Our vaccinators made 2,746 primary and 279 secondary vaccinations; 870 tubes of lymph were used at a cost of \$261.

Private practitioners and public vaccinators made 1,031 primary vaccinations.

### Anti-Mosquito Works.

The Anti-Mosquito gangs did good work, cutting down vegetation, digging, levelling and clearing ditches, collecting old tins, coconut shells and burying them at Dato Kramat, Waterfall, Ayer Rajah, Perak, Burnah, Cottlieb, Brown, Scott, Scotland, Macalister, Brick Kiln, Anson, Patani, Seang Tek, Siam, Trang, Barrack, Cantonment, Kelawei, Krian, Larut, Jahudi, Pahang, Sungai Pinang, York, Jelutong, East Jelutong, Batu Lanchang, Bell, Hogan, Adam, and Barnett Roads, Ayer Itam behind Ayer Itam Road private market and Sungai Mati, Kinta, Singora, Green and Bagan Jermal Lanes, Lorong Slamet, Westlands and Babington Avenue; they also cleared the river banks from the Chetty's Temple to Perak Road Bridge: before and after the Thaipusam they cleared up the ground in the vicinity of the Temple.

The Chokra gang under Sub-Inspector Peters went through the Town Area destroying and clearing up the breeding places of mosquitoes generally.

All ditches, pools and swamps within the Town Area and the Race Course were regularly sprayed with solar oil and crude oil once a week; 7,670 gallons of solar oil and 11,505 gallons of crude oil were used: the cost was \$2,442.60 and \$2,778.90 respectively.

The gangs also cleared up private lands at the cost of the owners.

### Staff.

S.S.I. G. Martinez resigned on 1st August.

S.S.I. Lim Fook Thoong joined the service on 1st August.

The staff worked satisfactorily throughout the year.

I have the honour to be,

Sir,

Your obedient servant,

W. A. WARD.

## A

Prosecutions.	B. forward from 1924.	Issued in 1925.	Cases in Court.	Convictions.	Withdrawn.	Dismissed.	A. N. O.	C. O.	P. O.	M. O.	Total orders obtained.	Fines.		Costs.		
												\$	cts.	\$	cts.	
Nuisance Notice	...	4	97	90	87	3	...	74	...	1	2	77	122	00	43	50
Nuisance Orders	...	2	12	10	8	2	...	...	...	...	...	...	30	00	4	00
Drains and Latrines	...	...	28	24	22	1	1	...	...	...	12	12	15	00	11	00
Trades	...	...	20	20	20	...	...	...	...	...	...	...	47	00	10	00
Common Lodging Houses	...	...	74	74	70	4	...	...	...	...	...	...	251	00	* 38	00
Breach of C.L.H. by-laws	...	19	19	19	...	...	...	...	...	...	...	...	354	00	9	50
Filthy premises	...	...	11	11	11	...	...	...	...	...	...	...	88	00	5	50
Secs. 160/161	...	...	17	16	15	1	...	...	...	...	1	1	43	00	7	50
Bakery by-laws	...	...	30	30	29	1	...	...	...	...	...	...	159	00	14	50
Milk	...	42	44	41	41	...	...	...	...	...	...	...	393	00	31	00
Failing to report Birth	...	1	14	15	12	1	2	...	...	...	...	...	...	...	6	00
Failing to report Death	...	...	1	1	1	...	...	...	...	...	...	...	...	...	...	50
Breach of pig by laws	...	...	40	39	38	1	...	...	...	...	...	...	151	00	19	00
Breach of Cattleshed by laws	...	...	2	2	2	...	...	...	...	...	...	...	...	...	1	00
Lime Washing	...	...	6	6	6	...	...	...	...	...	...	...	10	00	3	00
Failing to expose license boards	...	...	15	15	15	...	...	...	...	...	...	...	32	00	7	50
Mosquitoes	...	...	4	4	3	1	...	...	...	...	...	...	...	...	1	50
Food and Drugs Ord'ce	...	...	12	12	12	...	...	...	...	...	...	...	86	00	186	00
Using night soil as manure	...	7	7	7	...	...	...	...	...	...	...	...	32	00	3	50
Wells	...	...	2	2	2	...	...	...	...	...	2	2	...	...	1	00
Lodging Houses Minor Offences Ordinance	...	...	1	1	1	...	...	...	...	...	...	...	...	...	...	50
Total	...	49	456	439	421	15	3	74	...	1	17	92	1,813	00	404	00

\* Including warrant fees \$3.00.

Trade Licenses 1925	No. 1924	Fees		No. 1925	Fees		No. Increase	Fees		No. Decrease	Fees				
		\$	cts.		\$	cts.		\$	cts.		\$	cts.			
Coal Depot	...	2	24 00	4	48	00	2	24	00	...	...	...			
Charcoal Depot	...	33	198 00	29	174	00	...	...	...	4	24	00			
Candle Factory	...	17	136 00	14	112	00	...	...	...	3	24	00			
Cattleshed and Cattle	...	100	466 00	110	561	00	10	95	00	...	...	...			
Wood Depot	...	74	444 00	68	408	00	...	...	...	6	36	00			
Dyeing House	...	4	40 00	4	40	00	...	...	...	...	...	...			
Fish Storing and Curing ...	...	38	456 00	46	552	00	8	96	00	...	...	...			
Braziers, Foundries and Smithies	...	57	114 00	56	112	00	...	...	...	1	2	00			
Pig Stys	...	53	106 00	54	108	00	1	2	00	...	...	...			
Pig Stys (Free)	...	402	...	471	...	...	69	...	...	...	...	...			
Pepper Washing Factory	...	1	10 00	1	10	00	...	...	...	...	...	...			
Pottery Making	...	1	2 00	1	2	00	...	...	...	...	...	...			
Rags, Bones and Feathers	...	5	60 00	4	48	00	...	...	...	1	12	00			
Soap Factory	...	13	104 00	13	104	00	...	...	...	...	...	...			
Stables and Horses	...	2	11 00	2	11	00	...	...	...	...	...	...			
Sheep and Goats	...	7	27 00	5	21	00	...	...	...	2	6	50			
Tanneries	...	17	408 00	17	408	00	...	...	...	...	...	...			
Blachan Factories	...	2	24 00	2	24	00	...	...	...	...	...	...			
Bakeshops	...	43	215 00	38	190	00	...	...	...	5	25	00			
Cookshops	...	180	900 00	192	960	00	12	60	00	...	...	...			
Eatingshops	...	639	3,195 00	654	3,270	00	15	75	00	...	...	...			
Storing and Curing Hides	...	3	36 00	5	60	00	2	24	00	...	...	...			
Sago Factory	...	1	10 00	1	10	00	...	...	...	...	...	...			
Atap, Kajang and Straw ...	...	45	135 00	49	147	00	4	12	00	...	...	...			
Sugar Boiling	...	12	72 00	11	66	00	...	...	...	1	6	00			
Market Gardens	...	36	...	34	...	...	...	...	...	2	...	...			
Drying Cloth	...	1	5 00	1	5	00	...	...	...	...	...	...			
Milk Sellers	...	217	217 00	204	204	00	...	...	...	13	13	00			
Lodging Houses (Minor Offences Ord.)	...	26	26 00	26	26	00	...	...	...	...	...	...			
Fresh Fish and Meat	...	45	225 00	47	235	00	2	10	00	...	...	...			
Total	...	2,076	7,666	80	2,163	7,916	30	125	398	00	38	148	50		
Common Lodging Houses		869	1,523	90	876	1,530	20	7	6	30	...	...	...		

